In the Claims:

Please cancel claims 4, 9, 24 and 68-81 without prejudice or disclaimer.

Please amend claims 1, 21, 29, 34, 41 and 42 as follows:

Sub A1

Sub B7

1. (Amended) A method of producing a semiconductor member[,] comprising the steps of:

forming a porous layer in a surface region of a first substrate;

forming a semiconductor layer on the porous layer by liquid phase epitaxy using a melting solution in which elements for forming the semiconductor layer to be grown are dissolved up to a supersaturated state or a substantially supersaturated state;

bonding a second substrate to a surface of the semiconductor layer opposite to a semiconductor layer surface bonded to the first substrate; and

separating the first substrate from the semiconductor layer by utilizing the porous layer to transfer the semiconductor layer to the second substrate.

Sub A2

Sub B7

21. (Amended) A method of producing a solar cell[,] comprising the steps of:

Cont. A2

forming a porous layer in a surface region of a first substrate;

forming a semiconductor layer on the porous layer by liquid phase epitaxy using a melting solution in which elements for forming the semiconductor layer to be grown are dissolved up to a supersaturated state or a substantially supersaturated state;

bonding a second substrate to a surface of the semiconductor layer opposite to a semiconductor layer surface bonded to the first substrate; and

separating the first substrate from the semiconductor layer by utilizing the porous layer to transfer the semiconductor layer to the second substrate.

A3 Sub B4

29. (Amended) A method [according to claim 21,] of producing a solar cell comprising the steps of:

forming a porous layer in a surface region of a first substrate;

forming a semiconductor layer on the porous layer by liquid phase epitaxy;

bonding a second substrate to a surface of the semiconductor layer opposite to a semiconductor layer surface bonded to the first substrate; and

C ncl. A3

separating the first substrate from the semiconductor layer by utilizing the porous layer to transfer the semiconductor layer to the second substrate;

wherein the liquid phase epitaxy includes that a melting solution in which elements for forming the semiconductor layer to be grown are dissolved [upto] up to a desired concentration is used and the melting solution is brought in contact with a surface of the porous layer while a surface temperature of the porous layer is made lower than a temperature at which elements in the melting solution having the desired concentration are saturated.

A4 Sub B1

34. (Amended) A method according to claim 33, further comprising a step of separating [thed] the second substrate to transfer the semiconductor layer onto the third substrate.

A5

41. (Amended) A method according to claim 21, wherein before the bonding of the second substrate, an impurity is introduced into the semiconductor layer.

42. (Amended) A method according to claim 21, wherein before the bonding of the second substrate, an impurity is introduced into the semiconductor layer to form a p-n junction.

Please add new claims 87-108 as follows:

--87. A method according to claim 29, wherein the semiconductor layer is formed on the porous layer, the semiconductor layer comprising a region formed by vapor phase epitaxy and a region formed by liquid phase epitaxy in this order.

88. A method according to claim 29, further comprising a step of removing the porous layer remaining on the surface of the first substrate after the first substrate is separated from the semiconductor layer.

89. A method according to claim 29, wherein the liquid phase epitaxy is conducted under a reducing atmosphere.

90. A method according to claim 29, wherein the liquid phase epitaxy includes that a melting solution in which elements for forming the semiconductor layer to be grown are dissolved is brought in contact with the porous layer.

91. A method according to claim 29, wherein the liquid phase epitaxy includes that a melting solution in which elements for forming the semiconductor layer to be grown are dissolved is brought in contact with an epitaxial layer formed on the porous layer.

A6

92. A method according to claim 91, wherein the epitaxial layer is formed by vapor phase epitaxy.

93. A method according to claim 87, wherein the vapor phase epitaxy is conducted by decomposing a source gas while supplying a gas for forming a reducing atmosphere.

94. A method according to claim 29, wherein the bonding step of the second substrate is conducted using an adhesive.

95. A method according to claim 94, wherein the adhesive includes a water-soluble adhesive.

96. A method according to claim 29, further comprising a step of providing a third substrate on a separate surface for transferring the semiconductor layer onto the second substrate.

97. A method according to claim 96, further comprising a step of separating the second substrate to transfer the semiconductor layer onto the third substrate.

98. A method according to claim 29, wherein the second substrate has a water permeability.

99. A method according to claim 97, wherein the separation of the second substrate is conducted by the deterioration of adhesion of the adhesive used for bonding of the second substrate.

A6

100. A method according to claim 99, wherein the deterioration of the adhesion is conducted by a liquid that has passed through the second substrate.

101. A method according to claim 99, wherein the adhesive is water-soluble, and the deterioration of the adhesion is conducted by a water that permeates the second substrate.

102. A method according to claim 29, wherein an impurity in the porous layer is diffused into the semiconductor layer.

103. A method according to claim 29, wherein the liquid phase is conducted with indium as a solvent.

104. A method according to claim 29, wherein before the bonding of the second substrate, an impurity is introduced into the semiconductor layer.

105. A method according to claim 29, wherein before the bonding of the second substrate, an impurity is introduced into the semiconductor layer to form a p-n junction.

106. A method according to claim 29, wherein the second substrate has an electroconductive surface.